### ARKIV FÖR ZOOLOGI.

BAND 4. N:o 3.

# Two apparently new Antelopes from British East-Africa.

By

#### EINAR LÖNNBERG.

With 3 Figures in the text.

Read April 10th 1907.

Since Mr RICHARD TJÄDERS return to Sweden from his expedition to British East Africa 1906 he kindly presented to the Swedish Natural History Museum some mammals and birds, and among the former were found two Antelopes, a Dik-dik and a Waterbuck, which appear to be new and therefore are described in the following paper.

## Madoqua [Rhynchotragus] nasoguttatus n. sp.

When Oldfield Thomas in Proc. Zool. Soc. 1894 on 323 and following pages gave a review of the species of »Dwarf Antelopes of the genus Madoqua» known at that time he pointed out that the different species could be divided into two natural groups. The first of these was characterized by the following words: »Last lower molar without a third lobe; upper line of premaxillæ slanting, scarcely curved. Proboscis less developed». The second group again was distinguished by the following characteristics: »Last lower molar with a third lobe; upper line of premaxillæ S-shaped. Proboscis more developed».

Later discoveries have increased the number of species and subspecies of Dik-dik Antelopes, but the arrangement into two groups has not been broken. On the contrary it has been confirmed to such a degree that O. Neumann 1905 (Sitz.-ber. Ges. naturf. Freunde, Berlin, N:o 3) found it suitable to establish a new genus for the second group and created for the same the name Rynchotragus, keeping the name Madoqua for the first group. Madoqua s. str. should then embrace the following species (resp. subspecies): saltiana Blainville, swaynei Thomas. phillipsi Thomas, hararensis Neumann, erlangeri Neumann and damarensis Günther. The new genus Rhynchotragus should include kirki Günther with the subspecies hindei Thomas, and the nearly allied thomasi Neumann, and further the species cavendishi Thomas, and guentheri Thomas with the subspecies smithi Thomas.

Already in his first synopsis of the species of Madoqua Thomas subdivided the then known members of the present genus Rhynchotragus into two groups according to the size of the nasals. In the first group the tip of nasals is about level with the front edge of the anterior premolar and about 33 mm. from the end of the premaxillæ. This group comprised then the species damarensis and kirki. To these have later been added cavendishi and, as a subspecies to kirki, hindei both by Thomas, and thomasi by Neumann.

In the second group of *Rhynchotragus* the nasals are still shorter so that they are only about level with the back of the middle premolar and about 42 mm. from the end of the premaxillæ. To this group belonged at first only the species *guentheri* from the plateau of Central Somaliland, but in the year 1900 a subspecies *smithi* was added from the country S. E. of Lake Stephanie.

The species which now is to be introduced here must be counted to the latter group. The anterior tip of its nasals are about level with the back of the middle premolar and about 45 mm. from the end of the premaxillæ. The last measurement is counted in the median line, if it is counted from the gnathion to the anterior end of the naso-maxillary suture it is 43 mm. In these two characteristics the new species consequently agrees with guentheri and its subspecies hindei, but on the other hand, it differs from both, as well in cranial as in exterior characters. The new species is re-

markable for its very short nasals which only measure 12 mm. in length while their combined breadth amounts to 14. As is seen from the following table of cranial measurements in which the measurements of *Rhynchotragus guentheri* and its subspecies *hindei* are quoted from Thomas (Proc. Zool. Soc. resp. 1894 p. 326 and 1900 p. 804) the dimensions of the nasals of the new species are smaller than in the two others. In this respect the new species offers some likeness with *Rh. kirki* although in the latter, as is already mentioned,

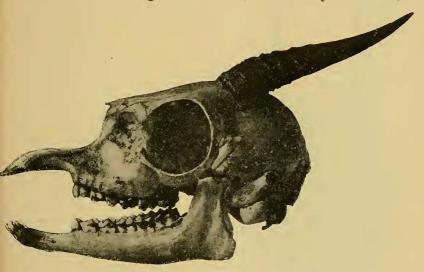


Fig. 1. Side-view of skull of  $Rhynchotragus\ nasoguttatus.$ 

these bones reach forward so far that their anterior ends are level with the front edge of the anterior premolar and therefore every further comparison between *kirki* and the new species is unnecessary.

Thomas' cranial measurements of Rh. guentheri are taken from a female, and the females are according to the author just quoted »rather larger than the males». The measurements of Rh. g. smithi are of a male and thus directly comparable with those of the present specimen. It is evident from such a comparison that Rh. g. smithi is a considerably larger animal with its basicranial length about 7 % greater than that of the new species. But in spite of this the latter has a, not only comparatively but even absolutely, broader forehead so that the least interorbital breadth on the frontals

of the larger species is only 95  $^{\circ}$ / $_{\circ}$  of that of the smaller. *Rh. guentheri* has a still narrower forehead so that the corresponding percentage for the same according to Thomas' measurements is only 87,8  $^{\circ}$ / $_{\circ}$ .

Rh.	guentheri	Rh. g. smithi	Rh. nasoguttatus
Basal length	97	102,5	95,5
Greatest breadth	51,6	59	57 <sup>1</sup>
Nasals, length	17,5	14,5	12
Nasals, combined breadth	15,5	16	14
Interorbital (least) breadth on			
frontals	36	39	41
Breadth of brain-case	41,5	44,2	42,5
Gnathion to junction of nasals			
and maxillary	42,3	45,5	43
Gnathion to orbit	53,5	59	55
Gnathion to front of alveolus of p 2	28,2	29,2	27,5
Length of upper molar series	33	37	37

The upper molar series is rather long in the new species as it greatly surpasses that of Rh. guentheri and is equal to that of the larger subspecies Rh. g. smithi.

A comparison between the skull of the present species and the figures of the skull of *Rh. guentheri* communicated by Thomas (Proc. Zool. Soc. 1894 p. 324 & 325) reveal some other important differences. The greatest length of the frontals of *Rh. guentheri* measured on the top view of the skull (l. c. p. 325) is contained twice in the distance between the anterior end of the nasals and the suture between the parietal and the occipital. But in the new species the length of the frontals is by far not contained twice in the same distance.

The great length of the frontals of the new species is also proved by the fact that their length on top of the skull is more than twice the distance between the anterior foramina supraorbitalia, while, to judge from Thomas' figure (l. c. p. 325), the latter distance in Rh. guentheri is more than half the length of the frontals.

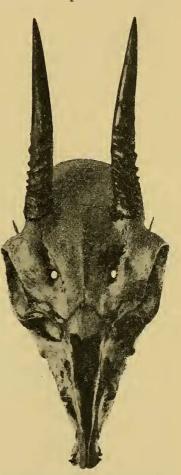
The premaxillaries of the new species are much more closely joined anteriorly than those of *Rh. guentheri*. The fissure between them is in the former only 1 mm. but even in the reduced figure of the latter the same dimension is more than that.

 $<sup>^{1}</sup>$  This is the zygomatic breadth but the greatest breadth across the skull at the posterior wall of the orbit is  $59,\!\!5.$ 

The preorbital portion of the skull is comparatively much longer in the new species than in Rh. guentheri. This is proved by the following comparison. In Rh. guentheri the distance between the gnathion and the anterior brim of the orbit is equal to the distance from the latter place to anterior

margin of meatus auditorius according to Thomas' figure (l. c. p. 324). But in the new species the former measurement is equal to the distance from the anterior brim of the orbit to the squamosooccipital suture.

The general colour of the new species is grizzled grey. This colour is produced in the following way. The hair on the neck is dark greyish brown with dirty whitish subterminal rings. This colour extends all over the neck to the withers and down over the shoulders. Along the back the colour has a somewhat sandy tinge because the subterminal rings of the hair are pale sandy vellowish and the tips dark brown. Over the flanks the vellowish tinge becomes stronger because the hair of those parts is grey with broad subterminal rings which beginning with pale ochre yellow fade to whitish towards the short brown tip. Towards the belly the white becomes more conspicuous or dominant and the brown tips disappear. The colour Fig. 2. Top. view of skull of Rhynof the hams is similar to that of the shoulders.



chotragus nasoguttatus,

The general colour of the preocular portion of the face and the proboscis is pale rufous, becoming paler almost sandy towards the lips but bright rufous towards the forehead in a zone between the face glands. This rufous colour extends as a band over the eye to the ear and nape but becomes gradually paler behind. The outer side of the ears is from rufous to sandy brown, the hairs within are white. The long hairs of the head crest are black, some of the anterior ones have whitish subterminal rings, the middle ones have more or less rufous or brownish yellow subterminal rings. A very characteristic feature is that the rufous anterior portion of the face and the proboscis are richly spotted with snowy white. The white spots are not regular but very well defined and appear to have a tendency to be arranged into longitudinal series or even in some instances to become confluent into bands. As such spots are not described on any *Madoqua* or *Rhynchotragus*, as far as I know, I have thought suitable to derive the name from this and call the new species, *Rhynchotragus nasoguttatus*.

The region below the eye is greyish white with broad subterminal white rings and short brownish tips to the hairs. The same colour extends all over the fore neck and lower side of neck, on the sides gradually passing into the slightly darker grey of the upper neck. A large white patch on the throat is by a pale sandy tract separated from a white spot on the chin. Breast and belly are white. The grey of the shoulders and hams extends down fore- and hind-legs but passes gradually into a pale rufous or sandy brown which reaches to the hoofs. As well fore- as hind-feet are provided with small white spots which, however, are smaller and less defined than those of the proboscis.

The horns are black, rather strongly ringed but the rings do not extend over more than about  $^3/_7$  of the proximal portion of the horn. The rings are not complete but less developed almost obsolete on the median side of the horns. The proximal portion of the horns is obliquely compressed from the sides so that the shorter (transverse) diameter is about  $8^1/_2$  mm., the longer (sagittal) diameter about 12 mm. The length of the horns is 70 mm. In a frontal view the outer contour of the horns is very slightly concave and the inner correspondingly a little convex. The distance between the tips is 34 mm.

The hoofs are black, the length above 15 mm.

If the colour of *Rh. nasoguttatus* is compared with that of *Rh. guentheri* the differences appear to be rather great. In addition to the white-spotted nose of the new species there are several other distinguishing features. Among those it is perhaps most apparent that the new species is more grey and less yellow than *Rh. guentheri*. The crest of the latter is said to be »much mixed with black» but in the former it is black.

The above described typespecimen of Rhynchotragus nasoguttatus has been shot by Mr. R. TJÄDER the 20th of Aug. 1906 20 kilometres S W. of Lake Baringo, British East Africa.

## Cobus defassa tjäderi n. subsp.

The typical Cobus defassa (RÜPPELL) is a well known animal distinguished from its nearest allies (those which are like the »Defassa» provided with a white rump-patch) by its rather long and somewhat pointed ears a white patch on the upper throat, the red colour of the forehead and the general rufous brown colouration of the body.

The specimen presented by Mr. TJÄDER and named after him undoubtedly belongs to the *defassa*-group, but it differs so much from the typical form that I believe it must at least provisionally be regarded as representing a new geographic subspecies. This difference makes itself known especially in the much darker colouration of most parts and greater extension of dark areas, which latter may be seen on the accompanying figure of the skin.

The black of the face extends from above the white ring round the muzzle upwards to above the middle of the white eye stripe, and on the sides to the corner of the mouth. It has thus a considerably greater extension than in the true defassa. The white eye-stripe is clear and well defined but does not extend further backwards than over the anterior third of the eye. Above the black face the forehead is bright rufous somewhat mixed with black. The sides of the face behind the lateral extension of the black has the same colour as the forehead except that the region from below the eye to the root of the ear is paler, buffish brown shading into whitish at the ear. The sides, and the under parts of the lower jaw behind the clear white chin are dark brown so-

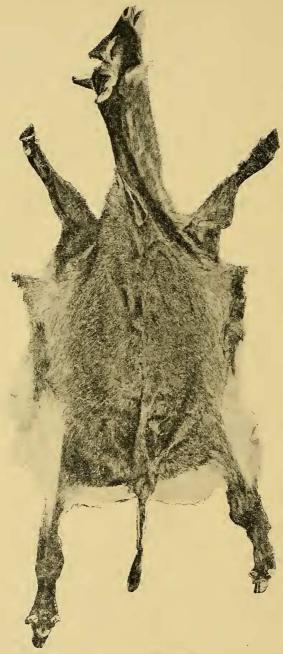


Fig. 3. Skin of Cobus defassa tjäderi.

mewhat mixed with hoary white from the basal parts of the hair. The back of the ears is rufous but with broad white areas on either side, the tip is black and the inside white. The upper side of the neck is rufous with black tips to the hairs, but the sides and the lower parts of the neck behind the white throat patch is of a mixed greyish brown colour produced by the hairs having their distal parts blackish and their basal parts light grey partly rufous. The colour of the body is also mixed in a peculiar manner. It is dark brown, in some lights almost blackish brown, but to a certain degree mixed with red. This is effected by the hairs having long black tips and rufous bases, and besides some scattered hairs are (basally or wholly) whitish. Towards the root of the tail and at the borders of the white rump-patch the rufous colour is more dominating but otherwise the whole animal is much darker than the rufous brown typical Cobus defassa. The hairs are rather short only measuring about 2 cm. on the back and sides.

The under parts are dark brownish grey, the distal parts of the hairs being dark smoky brown and the basal parts hoary grey. The posterior part of the belly from the inguinal tract to round the navel whitish with long hairs. At the prepuce a tuft of brown hairs is placed. The legs and feet are black with a brownish shade in front. A narrow white line round the hoofs. The tail is proximally coloured like the back, distally it is almost black, and so is the tuft; below it is white. Its length without the tuft is about 32 cm. The length of the ears is about 22 cm.

The horns appear to be rather short and stout and less curved when compared with a typical defassa. Their length along the anterior curvature is about 48 cm. and their basal circumference about 18½ cm. They are provided with 20 rings. This shortness of the horns is not due to youthfulness as the animal to judge from the well worn molars might be termed middle-aged.

Basal length of skull	374	mm.
Length of nasals	165	>>
Distance from gnathion to orbit	253	<b>»</b>
Length of upper molar series	99	<b>»</b>

This Waterbuck was shot by Mr Tjäder the 5th of Sept. 1906 to the west of the junction of the rivers Goaso Nanek and Goaso Nyeri, that is in the north western part of the Leikipia plateau.

Tryckt den 7 juni 1907.